

I claim:

1. A method of determining air humidity with a capacitive moisture measuring element, comprising the method steps of:
 - charging and/or discharging the capacitive moisture measuring element by way of a first measuring resistor, wherein a first time constant or a first period duration of the charging and/or discharging operation is ascertained, and
 - charging and/or discharging the moisture measuring element by way of a second measuring resistor, wherein the value of the second measuring resistor is different from the value of the first measuring resistor and wherein a second time constant or a second period duration of the charging and/or discharging operation is ascertained.
2. A method as set forth in claim 1, further comprising a method step in which the capacitance of the moisture measuring element is calculated from the two time constants or the two period durations, wherein the moisture measuring element for the calculation operation is modelled by a parallel circuit of an ideal capacitor and an ohmic resistance.
3. A method as set forth in claim 1, further comprising a method step in which the ohmic resistance value of the moisture measuring element is calculated from the two time constants or the two period durations, wherein the moisture measuring element for the calculation operation is modelled by a parallel circuit of an ideal capacitor and an ohmic resistance.
- 25 4. A method as set forth in claim 2, further comprising a method step in which a current moisture signal is ascertained with the capacitance of the moisture measuring element.
- 30 5. A method as set forth in claim 1, further comprising a method step in which a corrected moisture signal is calculated for a current moisture signal ascertained from electrical properties of the moisture measuring element, wherein in a measuring phase

with rising relative air humidity RH the corrected moisture signal is the current moisture signal increased by a correction value $a(RH)$ and wherein in a measuring phase with falling relative air humidity RH the corrected moisture signal is the current moisture signal reduced by a correction value $a(RH)$.

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6. A method as set forth in claim 5, wherein the correction value $a(RH)$ is constant.

10 7. A method as set forth in claim 5, wherein the correction value $a(RH)$ is stored in a table.

15 8. A moisture sensor comprising a capacitive moisture measuring element and a signal preparation unit connected to the moisture measuring element, with means for carrying out the method as set forth in claim 1.

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9. A moisture sensor as set forth in claim 8, further comprising a monitoring unit by which a certain deviation of an ohmic resistance value of the moisture measuring element over a relatively long period of time can be detected and signalled.

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10. A moisture sensor as set forth in claim 8, further comprising a correction unit by which a corrected moisture value can be calculated for a moisture value ascertained for the moisture measuring element, wherein in a measuring phase with rising relative air humidity RH the corrected moisture value is the current moisture value increased by a correction value $a(RH)$ and wherein in a measuring phase with falling relative air humidity RH the corrected moisture value is the current moisture value reduced by a correction value $a(RH)$.

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